AMENDMENTS TO THE CLAIMS

In the Claims:

The following listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently amended) A call access control method, comprising the following steps:

(1) counting the number of accessed subscribers in all current communication time slots of ~~the~~ a home base station for an access request, to determine channel resource occupations in different time slots; and

(2) comparing said channel resource occupations in the different time slots, and then allocating idle resource units, in the time slots having available channel resources and ~~the~~ a minimum number of accessed subscribers, to the subscriber sending the access request.

2. (Original) A method according to claim 1, wherein said access request in step (1) refers to a access call sent from a new mobile subscriber to the home base station.

3. (Original) A method according to claim 1, wherein said access request in step (1) refers to a switching call sent from a mobile subscriber to adjacent cells.

4. (Original) A method according to claim 1, wherein the counting in step (1) comprises:

arranging corresponding counters for different time slots respectively, so that the number of counters are equal to the maximum number of time slots for communication that can be supported by the base station;

counting accessed subscribers in the time slots, and increasing the corresponding counter by 1 if the current resource unit is occupied; otherwise increasing it by 0.

5. (Original) A method according to claim 1, wherein step (2) comprises:

a) comparing channel resource occupations in all uplink time slots, and allocating the idle resource unit in uplink time slots having available channel resource and the minimum number of accessed subscribers to the new subscriber sending the access request as an uplink channel;

if the idle resource unit is allocated successfully, going to step b), otherwise going to step c);

b) comparing channel resource occupations in all downlink time slots, and allocating the idle resource unit in downlink time slots having available channel resources and the minimum number of accessed subscribers to the new subscriber sending the access request as a downlink channel;

c) returning a response signal to the call access request according to the channel resource allocations in the uplink and downlink time slots.

6. (Previously presented) A method according to claim 5, wherein step a) comprises:

comparing all counters storing the count value of accessed subscribers in the uplink time slots one by one, and selecting a counter with the minimum count value in the uplink time slots;

comparing said count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station;

if the count value stored in the counter is smaller than the threshold, allocating an idle resource unit in the uplink time slots corresponding to the counter as an uplink channel to the new subscriber sending the access request; otherwise indicating the failed allocation.

7. (Previously presented) A method according to claim 5, wherein step b) comprises:

comparing all counters storing the count value of accessed subscribers in the downlink time slots one by one, and selecting a counter with the minimum count value in the downlink time slots;

comparing said count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station; if the count value stored in the counter is smaller than the threshold, allocating an idle resource unit in the downlink time slots corresponding to the counter as a downlink channel to the new subscriber sending the access request; otherwise indicating the failed allocation.

8. (Previously presented) A method according to claim 6, wherein the threshold of subscribers to be accessed per time slot supported by the base station is 6~8, and is determined during initialization.

9. (Previously presented) A method according to claim 7, wherein the threshold of subscribers to be accessed per time slot supported by the base station is 6~8, and is determined during initialization.

10. (Previously presented) A method according to claim 5, wherein step c) refers to: when the channel resources in the uplink and downlink time slots are both allocated successfully, returning a message to the mobile station sending the access request to indicate the succeeded access; otherwise returning a message to the mobile station sending the access request to indicate the failed access.

11. (Previously presented) A method according to claim 5, wherein the channel resources in the uplink and downlink time slots are both allocated successfully, or returning a message to the mobile station sending the cell switching request to indicate the succeeded cell switching; otherwise returning a message to the mobile station sending the cell switching request to indicate the failed cell switching.

12. (Previously presented) The method of claim 6 wherein said threshold of subscribers is a maximum number of subscribers.

13. (Previously presented) The method of claim 7 wherein said threshold of subscribers is a maximum number of subscribers.

14. (Previously presented) The method of claim 8 wherein said threshold of subscribers is a maximum number of subscribers.

15. (Previously presented) The method of claim 9 wherein said threshold of subscribers is a maximum number of subscribers.

16. (New) A base station, comprising:

a first unit adapted to count the number of accessed subscribers in all current communication time slots of the base station in response to an access request to determine channel resource occupations in the time slots;

a second unit adapted to compare said channel resource occupations in the time slots and allocate idle resource units in the time slots that have available channel resources and a minimum number of accessed subscribers to the subscriber.

17. (New) The base station according to claim 16, wherein said access request is an access call sent from a mobile subscriber to the base station.

18. (New) The base station according to claim 16, wherein said access request is a switching call sent from a mobile subscriber to adjacent cells.

19. (New) The base station according to claim 16, wherein said counting the number of accessed subscribers comprises:

arranging corresponding counter for different time slot respectively, so that the number of the counters equals to the maximum number of time slots for communication that can be supported by the base station; and

counting accessed subscribers in the time slots, and increasing the corresponding counter by 1 if the current resource unit is occupied.

20. (New) The base station according to claim 16, wherein said comparing said channel resource occupations and allocating idle resource units comprises:

comparing channel resource occupations in all uplink time slots, and allocating the idle resource unit in uplink time slot, that has available channel resource and the minimum number of accessed subscribers, to a subscriber that sent the access request as an uplink channel; and

if the idle resource unit is allocated successfully, comparing channel resource occupations in all downlink time slots, and allocating the idle resource unit in the downlink time slot, that has available channel resources and the minimum number of accessed subscribers, to the subscriber that sent the access request as a downlink channel;

otherwise returning a response signal to the call access request according to the channel resource allocations in the uplink and downlink time slots.

21. (New) The base station according to claim 20, wherein said comparing channel resource occupations in all uplink time slots and said allocating the idle resource unit in the uplink time slot comprises:

comparing all counters storing the count value of accessed subscribers in the uplink time slots, and selecting a counter with the minimum count value; and

comparing said count value with a threshold, and, if the count value is smaller than the threshold, allocating an idle resource unit in the uplink time slot corresponding to the counter as an uplink channel to the subscriber that sent the access request, wherein the threshold is a number of subscribers to be accessed per time slot supported by the base station.

22. (New) The base station according to claim 20, wherein said comparing channel resource occupations in all downlink time slots and allocating the idle resource unit in the downlink time slot comprises:

comparing all counters storing the count value of accessed subscribers in the downlink time slots, and selecting a counter with the minimum count value in the downlink time slots; and

comparing said count value in the counter with the threshold of subscribers to be accessed per time slot supported by the base station, and, if the count value stored in the counter is smaller than the threshold, allocating an idle resource unit in the downlink time slot corresponding to the counter as a downlink channel to the subscriber which sent the access request.

23. (New) The base station according to claim 20, wherein said returning a response signal to the call access request according to the channel resource allocations in the uplink and downlink time slots comprises returning a message to the mobile station that sent the access request to indicate the successful access when the channel resources in the uplink and downlink time slots are both allocated successfully, otherwise, returning a message to the mobile station that sent the access request to indicate failed access.

24. (New) The base station according to claim 20, wherein the process of returning a response signal to the call access request according to the channel resource allocations in the uplink and downlink time slots comprises when the channel resources in the uplink and downlink time slots are both allocated successfully, returning a message to the mobile station that sent the cell switching request to indicate the succeeded cell switching, otherwise, returning a message to the mobile station that sent the cell switching request to indicate failed cell switching.